

10
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10

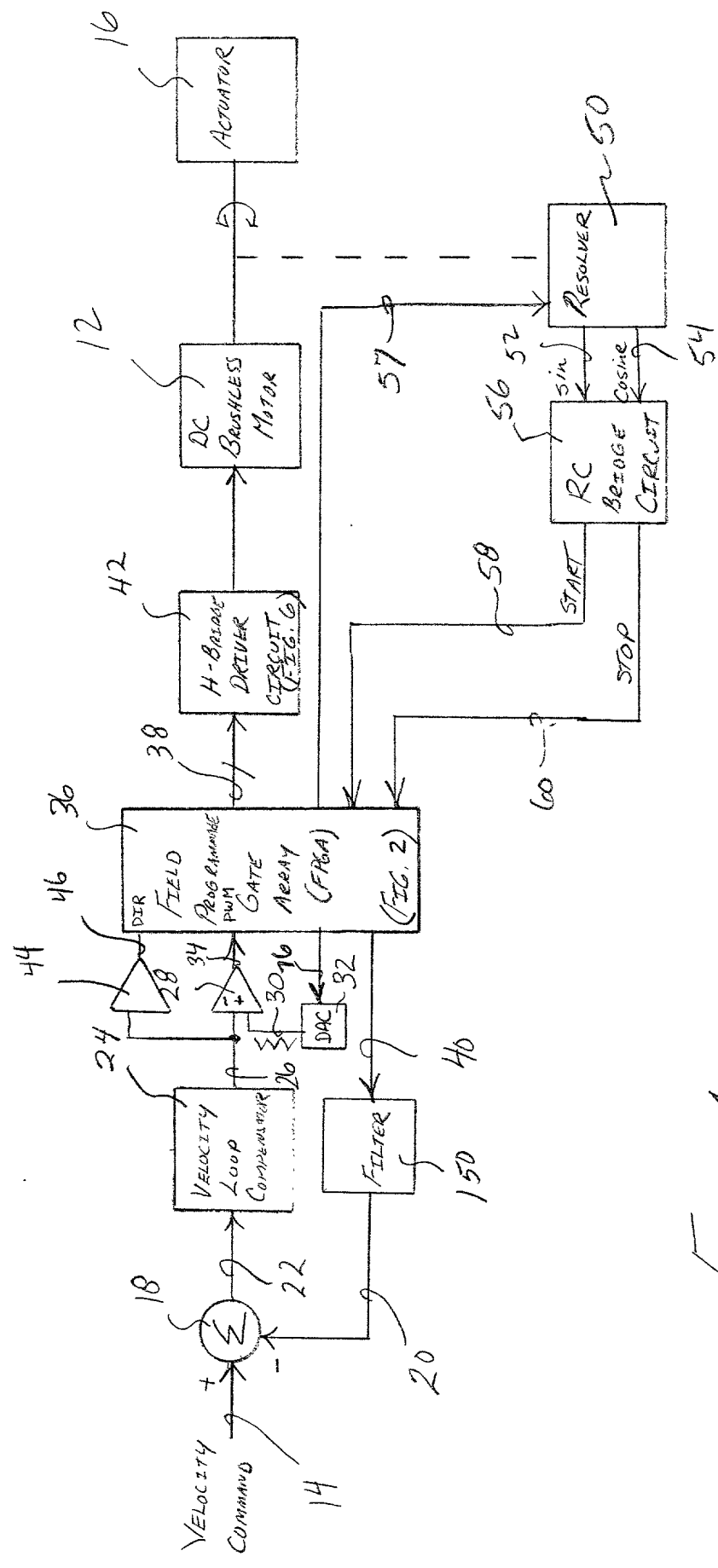


FIG. 1

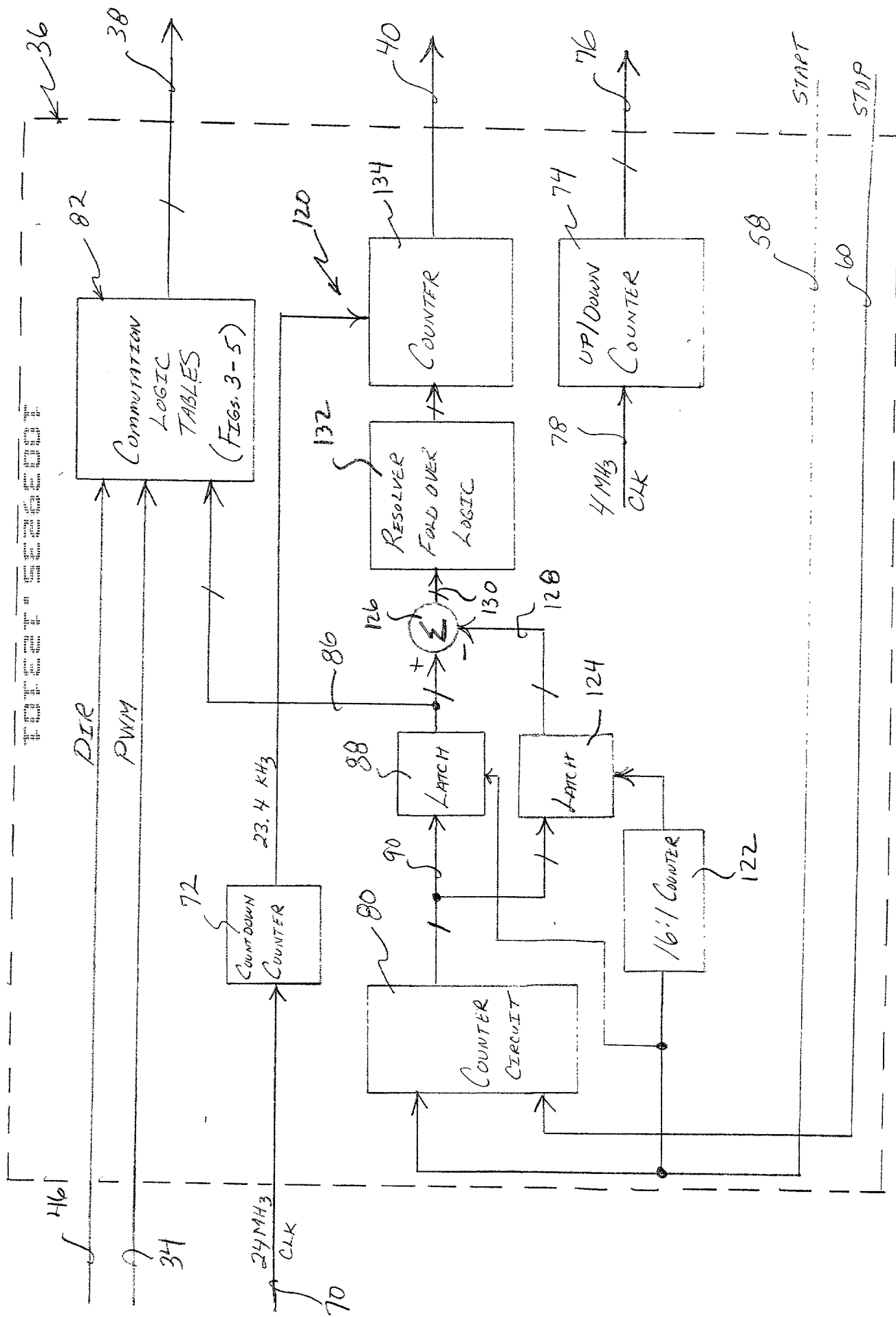


FIG. 2

CASE:

PWM =1

DIR =1

82

		STATE 1	STATE 2	STATE 3	STATE 4	STATE 5	STATE 6
FET GATES							
Q1							
Q2							
Q3							
Q4							
Q5							
Q6							
RESOLVER ANGLE θ (2 POLE PAIRS) DEG. RESOLVER		0-30 180-210	30-60 210-240	60-90 240-270	90-120 270-300	120-150 300-330	150-180 330-360
COUNTS (2 θ)		0-170	171-341	342-511	512-682	683-852	853-1023

109

110

FIG. 3

CASE:

PWM =1

DIR =0

82

FET GATES	STATE 1	STATE 2	STATE 3	STATE 4	STATE 5	STATE 6	
Q1							
Q2							
Q3							
Q4							
Q5							
Q6							
RESOLVER ANGLE θ (2 POLE PAIRS) DEG. RESOLVER	0-30 180-210	30-60 210-240	60-90 240-270	90-120 270-300	120-150 300-330	150-180 330-360	
COUNTS (2 θ)	0-170	171-341	342-511	512-682	683-852	853-1023	

FIG. 4

CASE:

PWM = 0

DIR = Don't care

82

DIR = 1 PWM = 0

DIR = 0 PWM = 0

FET GATES	STATE 1	STATE 2	STATE 3	STATE 4	STATE 5	STATE 6
Q1 0						
Q2 0						
Q3 0						
Q4 1 0						
Q5 1 0						
Q6 1 0						
RESOLVER ANGLE θ (2 POLE PAIRS) DEG. RESOLVER	0-30 180-210	30-60 210-240	60-90 240-270	90-120 270-300	120-150 300-330	150-180 330-360
COUNTS (2 θ)	0-170	171-341	342-511	512-682	683-852	853-1023

FIG. 5

104 105 106 107 108 109 110 111 112 113 114 115 116 117 118 119 120 121 122 123 124 125 126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200

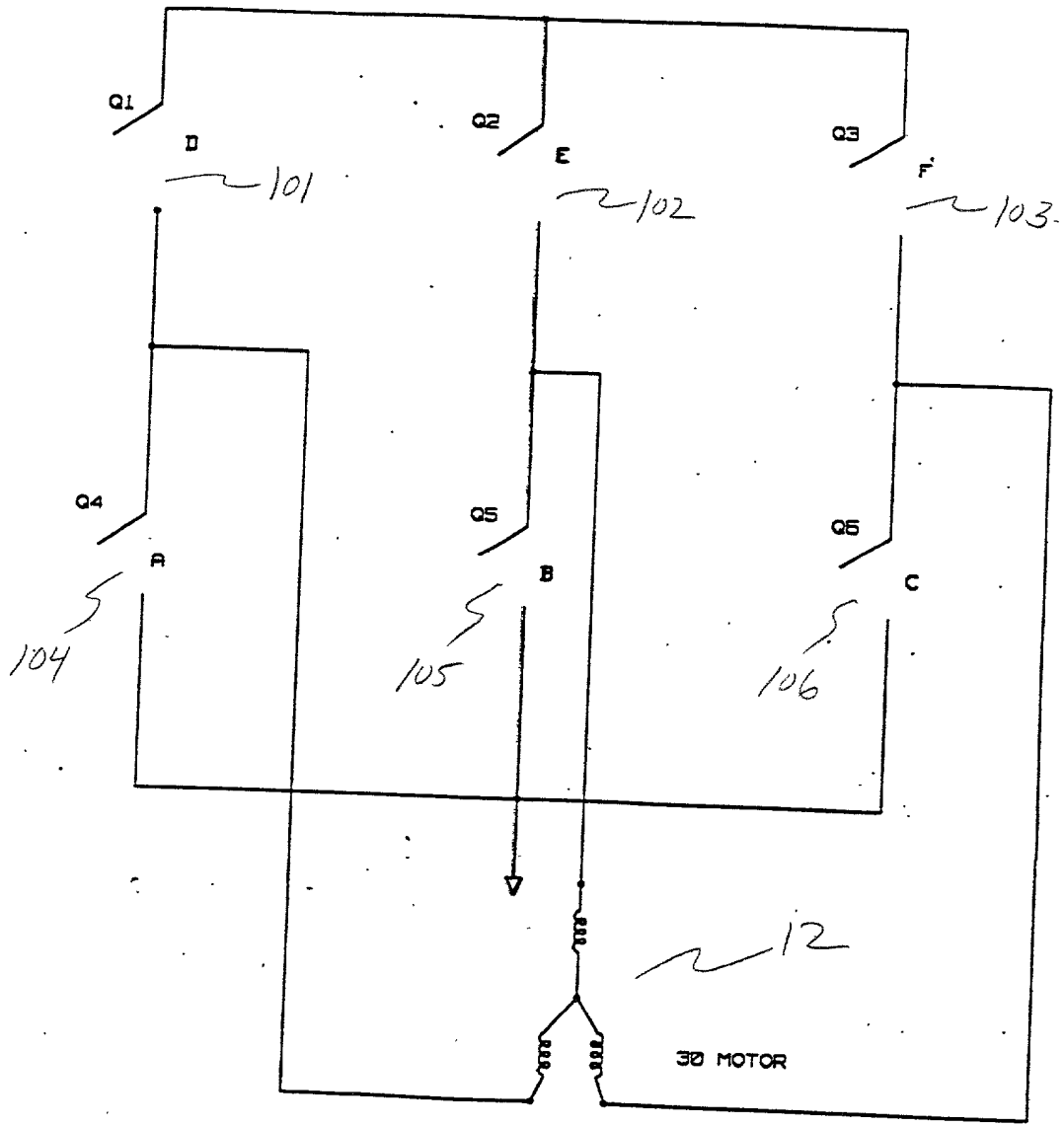


FIG. 6

IF Magnitude > 180 deg elec

ELSE IF SIGN is neg, ADD 360 deg elec

ELSE IF SIGN is pos, SUBTRACT 360 deg elec

ELSE
OUTPUT = INPUT

FIG. 7